DOCUMENT RESUME

ED 249 474 CS 007 804

AUTHOR Langer, Judith A.
TITLE Children's Sense of Genre: A Study of Performance on Parallel Reading and Writing Tasks.
SPONS AGENCY National Inst. of Education (ED), Washington, DC.
PUB DATE [84]
GRANT NIE-G-82-0025
NOTE 42p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Child Development; *Cognitive Processes; *Cognitive Structures; Elementary Secondary Education; Language Usage; *Reading Comprehension; *Reading Processes; *Reading Research; Writing Skills
IDENTIFIERS *Reader Text Relationship; *Story Structure

ABSTRACT

A study explored children's notions of what stories and reports are, how they can be organized, and when to use them, as revealed in the stories and reports they wrote or recalled and in their responses to questions about each. Sixty-seven high achieving children in grades three, six, and nine read and wrote similar kinds of stories and reports. This permitted comparison of ways in which they organized their knowledge across genre and domain. Findings indicated the following: (1) children have strongly differentiated notions of stories and reports and structure them in different ways from early in their lives, (2) they use these structures in the pieces they read and retell as well as in the ones they write, (3) both stories and reports grow in complexity along a variety of measures, and (4) both stories and reports show increased student control of genre-related organizational structures as children develop. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED249474

Children's Sense of Genre:

A Study of Performance on Parallel Reading and Writing Tasks

Judith A. Langer
School of Education
Stanford University
Stanford CA 94305

The study reported herein was supported by the National Institute of Education, grant number NIE-G-82-0025.

CS007804

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Judith A. Langer
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

This article explores children's notions of what stories and reports are, how they can be organized, and when to use them as revealed in the stories and reports they wrote or recalled, and in their responses to questions about each. Sixty-seven high achieving children in grades three, six, and nine read and wrote similar kinds of stories and reports. This permitted comparison of ways in which they organized their knowledge across genre (story and report) and domain (reading and writing).

Findings indicate the following: 1) Children have strongly differentiated notions of stories and reports and structure them in different ways from early on; 2) They use these structures in the pieces they read and retell as well as in the pieces they write; 3) Both stories and reports grow in complexity along a variety of measures; and 4) Both stories and reports show increased student control of genre-related organizational structures.

Children's Sense of Genre:
A Study of Performance on Parallel Reading and Writing Tasks

This study explores the extent to which young children differentiate between story and report, and how these differences manifest themselves in the structures they produce when they read and write. Although much has been written about children's notions of stories (e.g., Applebee, 1978; Stein & Glenn, 1979), Bissex (1980) is one of the few researchers who has given systematic attention to young children's uses of expository forms. From a functional notion of discourse, it would seem that young children share information all the time. From early on they recount the events of the day, tell their imaginary playmates how to go about flying to the stars, and share with their real friends all they know. Previous studies (Applebee, 1978) have indicated that children as young as two and a half use story telling patterns in imaginative modes of discourse. However, children's uses of informational discourse has remained less well explored.

The limited recent research looking at different types of discourse seems to fall into two categories: those studies which look at the capabilities of very young children, and those which look at cognitive aspects of different discourse types. In the first category, Bissex (1980), in her case study of her son Paul between the ages of 5 and 9, found that across these years his writing was

predominantly informational in function. Paul used writing as a way of showing evidence of his growing body of knowledge both of himself and of the world. He wrote "all-I-know" books and newspapers as well as stories, and through the years he explored new forms (e.g., different newspaper parts) and more complex presentations to develop and share his ideas. In a similar vein, Harste, Burke, and Woodward (1983) report in their study of 3 to 6 year olds' world of reading and writing, that even before they started first grade, the children they studied all had strong notions of genre differences. They could identify particular genres (e.g., birthday list, map, letter, and story) by responding to such organizational characteristics as letter grouping and page placement. Harste, Burke, and Woodward believe that organizational structures provide significant cues to functional understandings, and these understandings (which drive learning) are sociologically and contextually rooted.

Hidi and Hildyard (1983) examined fifth and seventh graders' differing cognitive behaviors as they wrote narratives and opinion essays, and report interesting distinctions across the two genres. Their data indicate that children's discourse production is genre-specific. The children's schema for arguments was less well developed than their schema for narratives, and their semantic and structural presentations in narration seemed to develop more steadily than their essay writing counterparts. Hidi and Hildyard did not find comparable distinctions in their comparisons of oral and written structures; the written structures were similar to those the children produced orally.

They conclude that difficulties with writing seem to be based more upon the discourse form itself than on the mode of production (oral or written). Olson, Mack, and Duffy's (1981) work with college students similarly points to the strong cognitive differences induced by varying genres. Their work, looking at how readers approach story and essay reading, describes the knowledge readers have about the underlying forms and surface conventions of the two genres, and how this structural knowledge is used to assist comprehension.

Although sparse, the relevant research strongly supports the notion that the strategies readers and writers employ differ with genre. Findings regarding children's control of expository forms are less clear; Harste et al. (1983) argue that children have mastery of a variety of expository forms, for example, while Hidi and Hildyard's (1983) work may suggest that expository skills develop later as well as more slowly than narrative competence.

The goal of the study reported here was to explore this last issue by comparing children's sensitivity to narrative and expository structures as reflected in their writing and reading activities. It describes children's sensitivity to the structural characteristics of two specific genres (story and report) in parallel reading and writing tasks. The reading passages and writing prompts used in this study were chosen specifically to differ in discourse function. The function categories were chosen from among those described by Applebee (1981), and include imaginative writing (represented here by stories) and writing in order to convey information (represented here by

reports). These discourse types were selected because they create very different cognitive as well as rhetorical tasks for both reader and writer, and because both are frequently encountered in school as well as out-of-school settings.

The Study

Sample

To learn what students were capable of knowing and doing under the best of circumstances, a student body whose general performance scores were above the national average in both reading and language was selected for participation. Sixty seven students drawn from a well-to-do suburban district in northern California enrolled in grades 3, 6, and 9 (approximate ages 8, 11, and 14) participated. Sixteen sixth graders, 36 sixth graders, and 15 ninth graders including approximately equal numbers of girls and boys completed the entire data collection process. They had an average percentile score of 84.9 in reading and 87.3 in general language skills as measured by the Comprehensive Test of Basic Skills.

Research Instruments

Passages and Prompts. For the story reading task, two passages about "first days" were selected. "Jackie" is a passage taken from Handstands, a third grade basal reader published by Allyn and Bacon (1978). It is about a nine or ten year old youngster who moves to a new neighborhood and is put to the test before being accepted by the local boys. After a summer of growing friendship and shared pranks,

the first day of school arrives and the boys find, much to their surprise, that their new friend isn't a boy at all. "The New Kid" is a passage taken from Black Boy by Richard Wright and is included in the ninth grade anthology Insights published by the Webster Division of McGraw Hill, 3rd Edition (1979). This story is about a teen age boy who moves to a new neighborhood and during his very first day at school must prove himself to the "tough guys" who dominate the social scene.

For story writing, a parallel "first day" prompt was developed:

> Make up a story about going somewhere, doing something, or meeting somebody for the first time. Write the make-believe story for other students your age to read.

For the report reading task, two informational passages about animals, one about moles and one about prairie dogs, were selected. "The Mole" was found in Ideas and Images, a third grade basal reader published by Allyn and Bacon (1971), and "The Crowd Pleasing Conservationist" (Prairie Dog), by John O'Rear, was found in Boy's Life magazine (December 1977). Both reports described the life styles and behaviors of the animals. The writing prompt developed to parallel these two reading passages was as follows:

> Think of something you know a lot about. It can be something you studied in school, a hobby, or something you're just interested in. Write a report about that topic for someone your age to read.

The easier passages ("Jackie" and "Mole") were approximately at third grade readability level and the more difficult passages ("New Kid" and "Crowd Pleasing Conservationist") at approximately eighth grade

readability level as measured by the Fry formula.

To arrive at these topics, selections from third, sixth, and ninth grade textbooks, anthologies, magazines, and library fiction and non-fiction books were reviewed for an indication of what children have access to in their school and personal reading. Teachers, school librarians, and children's librarians in local public libraries were interviewed for their suggestions as well.

Retellings

For the reading tasks, children were told in advance that they would be asked to retell what they were about to read. After completing a reading passage, the children were asked,

Tell everything you remember about what you've just read.

Design

To permit examination of age differences, a mixed design with between- and within-subject effects was used. For the reading tasks, two passage sets were constructed from the passages described above: one set contained the easier passages ("Jackie" and "Mole") and the other set contained the more difficult passages ("New Kid" and "Crowd Pleasing Conservationist"). In each passage set, half of the students were randomly assigned to a think-aloud procedure and the other half to a retrospection procedure. All of the third and half of the sixth graders read and reported on the easier passage set while half of the sixth and all of the ninth graders read and reported on the more difficult passage set. In this design, reading/writing and

story/report differences were within subject effects and age, easy-hard passage set, and think-aloud/retrospection differences were between subject effects.

Procedures

Half the students were assigned to a think aloud procedure. They were trained to provide information about their thoughts and behaviors as they were reading and writing. The other half of the students were assigned to a retrospective condition. They were trained to read (and retell) or write without disturbance, but to report their thoughts as best they could as soon as they completed the task. After completing their reading or writing task, the "retrospective" students were encouraged to retrace (line-by-line) the reading passage or their written texts as an aid in remembering what they had been thinking when they were reading or writing. All sessions were tape recorded for later analysis.

Each student was seen individually by a member of the project team for five separate sessions, each approximately one hour in length. During the first session, background information was gathered orally and the students were trained to engage in the think-aloud or retrospection procedures they would use during the next four sessions.

The succeeding four sessions were devoted to a writing (story), reading (story), writing (report), reading (report) activity using either the retrospective or think-aloud self-report procedure. Thus each student read and wrote both a story and a report, and shared his or her thoughts during, or directly after, each activity. In each

case, the writing activity preceded the reading activity lest the student be influenced by the recency of the reading passage in making topic and structure decisions; the order of the report and story tasks was randomized. Probe questions, administered after the retrospection or think-aloud procedure was completed, provided additional data not spontaneously reported by the students.

Analyses

The analyses reported here are based on comments during the general interview, and on the "product" data that was collected-- 134 writing samples and 134 retellings recorded immediately after students had read each passage.

Writing. Analyses of writing samples focussed particularly upon issues of overall rhetorical structure - of ways in which the students organized and framed the totality of their written work - , and also on issues of internal structure - of ways in which they segmented the content to organize and manage the complexity of their stories and reports.

Each of the texts the students wrote was analyzed using an adaptation of Meyer's (1975, 1981) prose analysis system. Meyer's analysis of content structure describes the ways in which information within a piece of writing has been organized by the writer. This is done by developing hierarchical tree structures which represent the interrelationships between top and lower level content information.

The analysis used in this study identified both top level and

lower level content relationships. Analyses of reports and stories were based upon t-unit representations of each text and organized according to the operational definitions presented below:

Topmost Level

Rhetorical predicates functioned as the overall organizing frames below which all other levels of the content hierarchy were subsumed. Lexical predicates which acted as rhetorical predicates representing the gist (of a story) or the thesis (of a report) were used only when none of the other top level rhetorical predicates listed below could be perceived as dominating the rhetorical structure of the text.

Rhetorical Predicates

a. Causal - antecedent and consequent specified at equal levels in the content hierarchy - these were not attributed to the text without explicit causal markers (e.g. so, because)

b. Response - problem/solution; remark/reply; question/answer specified at equal levels in the hierarchy

c. Alternative - two or more equally weighted views or options compared or contrasted

d. Sequence - steps, episodes, or events ordered by time at equal levels in the hierarchy; other rhetorical predicates could serve as events

Lower Levels

Embedded under the top level predicates were any number of further structural levels. Nodes in these levels could be composed of any of the rhetorical predicates listed above, as well as 5 further types that occur only at lower levels:

e. description - a variety of types of subordinate elaborations, including manner, attribution, specific, equivalent, setting, identification, epilogue

f. evaluation - opinion or commentary expressed by the writer about other ideas or events expressed elsewhere in the text

g. evidence - supporting argument

h. explanation - causal antecedents subordinate in staging to the main idea or event being explained (required explicit causal marker)

i. adversative - comparison between alternatives, where one was less favored and subordinate - the dominant alternative was related to a higher node

Terminal Level

Each branch terminated with a lexical predicate representing the content of the sentences (t-units) comprising the text.

All reports and stories were diagrammed and analyzed by one of three research assistants. When all analyses were completed, they were checked, and revised if necessary, by a second research

assistant. Finally, the resulting content hierarchies were checked and remaining differences resolved by the principal investigator.

The tree diagrams were quantified by coding the nature of the topmost structure, as well as the specific rhetorical structures used at lower levels. In addition, the following scores were computed: deepest level (lowest level in the content hierarchy), broadest level (level having the largest number of individual content nodes), number of deeply linked items (those rhetorical predicates or content items branching downward to more than one rhetorical predicate or content item), and shallowly linked items (rhetorical predicates or content items branching to only one rhetorical predicate or to a single content item).

Retellings. The four reading passages were also diagrammed in accordance with the procedures described above. After transcribing the retellings, the project team scored each transcript for the following characteristics: presentation of the top level structure, presentation of the overall gist, presentation of the title, recall of each particular content item, and number of words in the retelling. Interrater agreement across two raters was 93.3 percent in identification of items retold. The content items each student remembered were marked as they appeared within the tree structure. This permitted analysis of the content recalled in terms of its place within the content hierarchy of the passage.

Tests of Significance

Where appropriate, multivariate tests of significance were used. For selected variables, the design allowed a test of the main effects of grade (3, 6, 9), mode (talk-aloud, retrospective), genre (story, report), and task difficulty (easy, hard passage sets at grade 6). Analysis of variance was used where the distribution of scores was appropriate for it, and interaction terms were included in the tests of significance. For categorical variables, chi-square analyses were used with categories combined where necessary to raise expected frequencies to 5 or more. For genre effects, tests of significance were based on within-subject contrasts in both the analyses of variance and the chi-square analyses.

To simplify the presentation of findings, tabled results emphasize the factors which had the most influence (genre and grade). Mode (talk aloud, retrospective) effects, though rare, are pointed out when they occurred.

Results and Discussion

In examining results, we will look first at the children's own comments about differences between stories and reports, then at the differences reflected in the writing they completed, and finally at the extent to which these features influenced their reading (as reflected in the retelling tasks).

What Students Say About Stories and Reports

During the sessions, the children often spoke quite directly

about some of the differences they perceived between stories and reports. As early as third grade, the children had a firm notion of reports as being distinct from stories:

> A report tells something. A story just tells a story...it's made up.
>
> --Carol, grade 3

> Reports are real and stories aren't. In a story you can make animals talk but you can't in a report because real animals don't talk. (Sala)
>
> --Sala, grade 3

> In a report you just write until you can't think of anything else. There is no 'the end' like in stories. (Ana)
>
> --Ana, grade 3

> Reports are about something. It gives you information. It really doesn't matter the order. Because it's about things, the information can be in any order.
>
> --Tai, grade 3

From these examples, it can be seen that the children were quite aware that reports are information-giving while stories are make- believe. Some third graders, like Ana, had some notion of story markers and recognized differences such as "no <u>the end</u>" in reports, while others, like Tai, were able to talk about the structure of the information within the piece.

By grade 6, the children had begun to develop a more sophisticated language to talk about the differences between story and report:

> In a report it has to be all facts. You stick to the truth. You cannot give opinions, except maybe in the conclusion.
>
> --Kali, grade 6

> When you're reading a report you're ready to pick up any facts. When you read a story you kinda might have to skip over some

things that might not seem important and maybe aren't, and it won't matter. But in a report, it might really be drastic if you don't read a certain fact or you won't understand that it's a report.

--Stan, grade 6

When I write a report I look back into the facts in my mind about what I had remembered or thought of. When I'm writing a story, I'm just kind of remembering what other books had written and whaterver I was thinking. In a story I try to think of what the actors are like.

--Paul, grade 6

Stories don't usually have a conclusion gathering everything in the story. They just have a conclusion saying what happened next. Usually it isn't as neatly organized and all put together in a special order. It just sort of happens, what happens to the characters.

--Beth, grade 6

In their comments the sixth graders continued to focus on the dichotomy between facts and make believe, and also began to describe differences in organization (for example, Beth's and Kali's references to the conclusion and Stan's caution about unread bits).

Ninth graders used still more sophisticated language, but like their third and sixth grade counterparts they had difficulty talking about differences between stories and reports that went beyond the fact-fantasy distinction and the more obvious organizational features:

You learn from reports. A report has to tell the reader something about what it is about. A story doesn't tell you something you have to know. A report is usually more organized. You write an outline and stuff. There's no plan for stories.

--Jo, grade 9

In report writing you can list and plan, but in a story you have to go along with what sounds right.

--Jim, grade 9

> In a report you have to gather facts from an outside source, but in a story the ideas are your own. It's like collecting things together. You have to take all the facts and piece them together like a puzzle.
>
> --Peter, grade 9

> A good story has realistic characters that readers can relate with. A story is different from a report in that it must be entertaining and have adjectives to make it interesting and really hold the reader. Once you get rolling, I think a story is easier to write 'cause the events...
>
> --Jori, grade 9

Because students are likely to use their knowledge of genre differences in their writing even if they cannot clearly verbalize what those differences might be, we looked next at the structures embedded in the writing completed in response to story and report tasks.

How the Students Organized the Stories and Reports They Wrote

The findings, presented below, make it a parent that as early as grade 3, the students made clear and significant distinctions between stories and reports, and that these genre distinctions were stronger than grade distinctions in their effects on student writing.

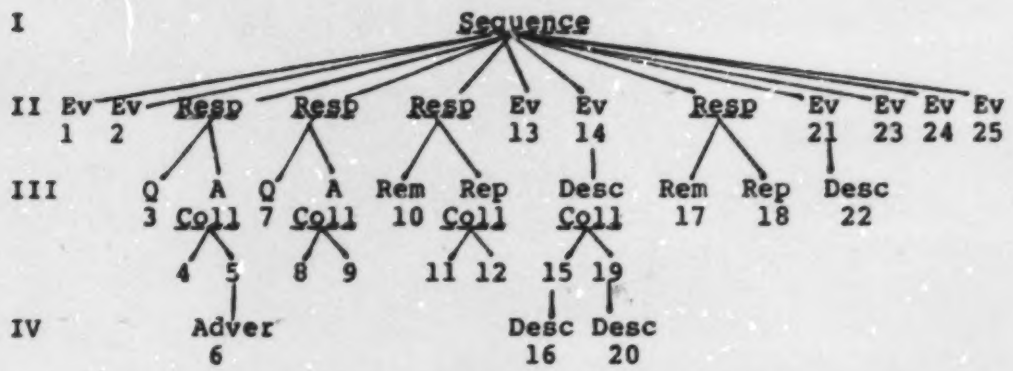
To illustrate the analytic procedures, we will begin by examining third grade Ana's story in response to the "first day" writing task.

Sarha and Her Adventure

> (1)One day Sarha was walking down the street when she heard a horrible noise in the sky (2)all of a sidden a witch on her broom stick came fall right down, down right in front of me. (3) I said to her, "who are you", (4) she sigh and said, "I am Glinda" (5) I'm - well I'm supposed to be a witch (6) but I can't do any trick" (7) how come" she said. (8) I don't know" (9) I just never could (10) "I'll help you if I can", Sarha said. (11) All right, she said as she jumped up (12)my magic book is right inside. (13) so for the rest of the after noon they spent

looking for a cure. (14) at about 8:P.M. they finally found the cure. (15) But! they had to go a long way to get it (16) ackshaly they had to go to the end of the world. (17) "let's take my broom stick" (18) "ok," Sarha said. (19) they had to get 5 clover and rud them on the little witch. (20) BUT! the clovers where graded by a mean and fishes DRAGON! (21) they trave'ed night and day to the clover patch (22) the dragon was asleep (23) we kreeped in to the clover patec picked the clover and ran swiftly away. (24) when they got home they rubed the clover on the witch and she became very powerful (25) she said thank you to sarha and flew away.

The end



Ana's top level structure is a sequence, reflecting the time-ordering that provides the major rhetorical pattern of the piece. Her lower level structures are responses (the remark/reply of her dialogue) and descriptions that elaborate or amplify earlier items, as well as an adversative marking a less favored alternative. A number of her content nodes are made up of collections of related ideas; these appear as collections of items under particular rhetorical predicates. The deepest level of structure in her story is 4; her broadest level (the level with the most rhetorical or lexical predicates) is 2. She has 9 deeply linked items (underlined in the

tree diagram, directly superordinate to 2 or more lower-level nodes); 5 items are shallowly linked (with 1 directly subordinate node); the remainder are unlinked. The main episodes occur when Glinda shares her problem with Sarha, and later when they work out how to solve the problem.

Ana clearly knows a good deal about story writing. She has set a problem, and has embedded some dialogue as her characters go about solving the witch's power problem. She has created tension along the way to the story's resolution. And she has flagged "the end" -- a conventional way of marking completion in children's stories. The tree diagram presents a picture of a well-organized and fairly sophisticated third grade story.

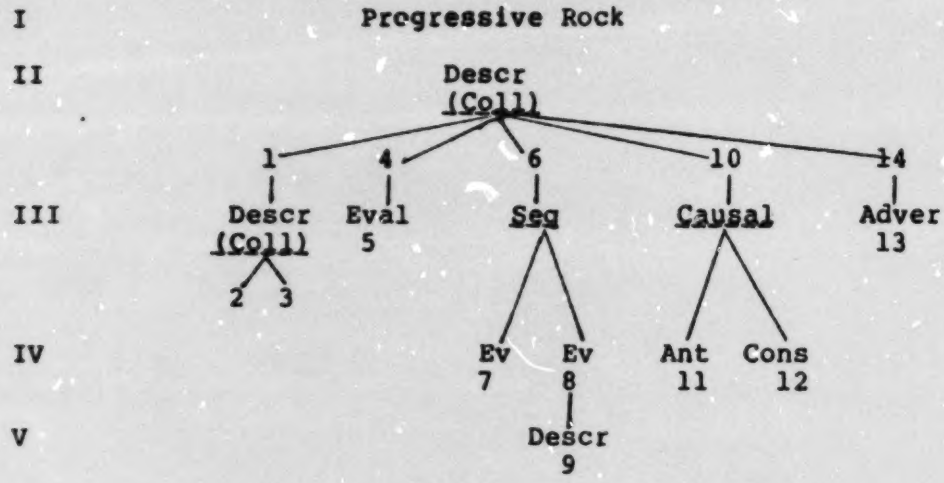
Reports, on the other hand, took on a very different organizational pattern. Ninth grade Peter's report is a fairly typical example.

Musical Mayhem

(1)In England in the early 70's there was uprising of a new kind of unusual music that was different than anything ever heard before. (2)The songs were longer than usual (20-30 minutes in some) and had odd lyrical content (not the normal "I want to get you into bed" lyrics). (3)To add to the strangeness, the musicians were incredibly proficient, exceedingly superior to the average rock musicians of the day.

(4)This music has been loosely termed progressive rock, (5)and its name fits its characteristics perfectly. (6)A good example of this is a group called Yes. (7)They released an album in 1968 that bordered more on pop than anything else (8)but through a succession of albums they improved as musicians and songwriters and wrote more and more meaningful lyrics. (9)Longer and more complex music arose with each album as they progressed to incredible musicianship.

(10)Progressive rock was quite popular, but to a so called "cult audience" not to a mass audience. (11)It was quite different than anything heard of before and (12)that might be one reason for getting into it. (13)As with anything, though, this musical art form died a quick death in the public eye. (14)But progressive rock musicians and music still remain as some of the most innovative musical products around today.



Peter's top level structure is a lexical predicate. (We can treat this top level as simply the existential assertion that progressive rock exists.) His lower level structures include descriptions that elaborate on earlier items, a time-ordered sequence, a cause/effect relationship and an adversative presenting a less-favored alternative. His deepest level is level 5 and his broadest level is level 3. He has 4 deeply linked items, directly superordinate to at least 2 other nodes, and 7 shallowly linked items that directly subsume 1 lower level node. His main information cluster occurs in the second paragraph where Peter uses the group Yes as an example of how progressive rock music developed in musical excellence.

The piece itself follows a thesis-elaboration form in which the

thesis is stated and then elaborated with a collection of facts, displaying Peter's knowledge of the subject. The description (collection) organizational pattern that results was frequently found in the students' report writing, as a way of presenting loosely related items of topic-relevant information. In Peter's case, the thesis-elaboration works as a fairly simple informational form. No real argument is set up, and progressive rock is not compared with any other kind of music. Applebee (1984) found similar structures in the writing of the secondary school students he studied, often as a way to recite content knowledge to a teacher who would use the information as a basis upon which to grade the student's knowledge.

Peter obviously knew a good deal about progressive rock music, and the tree diagram exemplifies the simple concatenation of information he used to present what he knew.

Group Results for Student Writing

Top Level Structures. Table 1 summarizes the top level structures used in the students' writing. At all ages studied, students were more likely to organize their writing around lexical as opposed to rhetorical predicates. Since rhetorical predicates are highly organized structures which represent the formulation of logically or temporally presented arguments or relationships, we can see that even the high achieving students in this study tended to rely on simpler organizational forms.

Insert Table 1 about here

In contrast, the lone rhetorical form used at all consistently by the students was sequence; this was used extensively by the story writers, especially at the sixth grade level. The temporal organization implicit in a sequence is less consistently appropriate in report writing tasks; instead, the students' reports tended to be organized around information clusters. The few sequences found in student reports occurred in "how to" reports which presented start-to-finish directions.

Most frequently, the students used the title of the piece as an organizing frame; this occurred almost twice as often in reports as in stories. Often the report title served as a conceptual organizer for tell-all-you-know-about-it reports, similar to Peter's "Musical Mayhem." The remainder of the stories and reports were organized around a main idea, stated or implicit, without a title.

Chi-square tests of significance indicate a clear overall genre difference ($p > .001$) in top level structure, although there are no comparably significant grade level differences. The major distinction between the story and report structures was the reliance on temporal sequence to organize stories and on titles to provide a superordinate content node for reports. Because there were no significant differences in mode (between the think-aloud and retrospective self report conditions), the two sets of data are combined in Table 1.

Internal Structure Table 2 summarizes a variety of other aspects of the internal structure of the students' writing, including the deepest level and broadest level in the content structure, and

the number of deeply and shallowly linked content nodes. (Larger values for all of these indices reflect a greater degree of internal structure within the samples analyzed.) As did their use of top level structures, students' use of internal structure showed a significant genre difference ($p > .001$ for the multivariate effect). Genre by grade effects were also significant ($p > .027$), reflecting greater changes in the structure of reports as opposed to stories as grade level increased. Although the indices of internal structure are roughly equivalent for stories and reports at grade 3, by grade 9 the means for reports are considerably higher across all four measures.

Insert Table 2 about here

Comparative Length. Table 3 presents changes across the grades in the total words, total sentences, total t-units, and number of words per t-unit. Not surprisingly, there are significant gains in all of these indices, for both stories and reports ($p > .001$ for the multivariate grade effect). These findings reinforce previous research (e.g., Loban, 1976) that has shown that children write longer papers, with greater syntactic complexity, as they get older.

Insert Table 3 about here

As with the measures of organization, genre effects were distinctly evident ($p > .001$). Overall, the ratio of words per t-unit was greater for reports, suggesting a greater use of syntactically complex writing in the reports as compared with the stories. It is also interesting to note that in grades 3 and 6, the students' stories were longer than their reports, yet by grade 9,

their reports were longer. This is reflected in the nearly significant genre x grade interaction ($p < .10$).

General Patterns. It is interesting to note that across analyses, stories showed less change than reports in their general organization. This may be because the students' notions of narrative structure were quite firmly in place as early as grade 3. Structurally, the students' stories did not change as dramatically as did their reports, which became considerably longer, more content laden, better elaborated, and more highly structured across the grades.

These differences suggest that although the children may have developed some forms by which to structure their early oral expository discourse, these were less helpful in their report writing than was their early knowledge of narrative for story writing. Here, we will speculate that young children may have more ubiquitous exposure to the more "adult" story structures than to their expository counterparts. Although children make functional use of exposition in daily speech, the more formal written report structures are less familiar to them than story structures. For this reason, as the findings indicate, the learning of organizational structures for reports seems to progress rapidly across the school years we studied while the story forms showed a relatively slower rate of change.

How Students Structured their Retellings

The students' retellings of the passages they read provide a way to examine the extent to which the structures they use in their

writing also influence their performance while reading. Figures 2 through 5 present the tree diagrams for the four reading passages. They illustrate the differences across the genres as well as the uniqueness of each individual passage. First, each differed in length: Jackie contained 71 content items (557 words), New Kid 72 content items (680 words), Mole 48 content items (573 words), and Prairie Dog 35 content items (409 words). The stories contained more separate content items than the reports, regardless of passage difficulty, and overall averaged more words per passage. The top level rhetorical structure of each story was a sequence while the top structure of each report was a lexical predicate (represented by the title). The New Kid was written in the first person; the others were in the third person. Both stories used sequences made up of events and rhetorical predicates (primarily response rhetorical predicates reflecting remark/reply dialogue structures) to move them along, while the reports were developed primarily through descriptions and description/collections.

Insert Figures 2 through 5 about here

Average Length of Retellings. Number of words in a retelling is one simple measure of how much has been remembered; Table 4 summarizes the relevant data for the four passages. Overall, the total words in the retellings tended to increase across passages across age. However, the ninth graders' retelling of Prairie Dog did not increase in length as did the others, suggesting this was the most difficult text for even the oldest students to read and remember. For the more

difficult passage set, there was a significant effect for mode (talk aloud vs. retrospective) ($p < .05$), and mode by genre ($p < .01$), with the retellings associated with the talk-alouds in general being longer than those associated with the retrospective condition, though more so for the reports than for the stories. This may be because in the think aloud condition the extra activity occurred before the recall was requested, while in the retrospective condition the extra manipulation of content (which might be expected to improve recall of difficult material) occurred after the recall request.

In general, stories led to longer retellings than did reports, significantly so for the easier passages ($p < .001$). Across ages, the students' average story retelling length was 211.8 words (the average story passage length was 618 words) as compared with 125.2 for reports (the average report length was 491 words). If these averages are expressed as a percentage of the original number of words, however, the pattern looks somewhat different. For the easier passages, the story retellings are clearly closer in length to the originals than are the report retellings; but for the harder passages, the report retellings are some 12.5 percentage points more complete than the story retellings.

Insert Table 4 about here

Recall of Higher Level Structures. Table 5 summarizes three other aspects of overall recall: the use of the original top-level rhetorical structure as part of the retelling; inclusion of the original title; and the extent to which the retelling reflected the

gist of the original.

Patterns for the two genre were quite different. The students tended to organize their retelling of stories around the original top level structures, but used this structure significantly less often in their retelling of reports ($p < .001$). Titles, on the other hand, were much more likely to be included in the retellings of reports. Across passages, students were more likely to recall the original gist of the stories than they were of the reports. Between grades 3 and 6, the children tended to increase their use of top level structures as well as their recall of the gist, for both stories and reports. Between grades 6 and 9, however, attention shifted more toward recall of the gist, and use of the top level structures declined for stories and increased only slightly for reports.

Insert Table 5 about here

Content Units Recalled. Table 6 summarizes recall of important content units, overall as well as at each level within the hierarchical content structure of the original passage. The percentage of content units recalled increased with age, for both stories and reports when compared within a particular passage set ($p > .004$ for the easier passages, $p > .066$ for the more difficult set). Recall was also significantly greater for the easier passages than for the harder passages at grade 6, where each set was completed by half of the children. ($p < .032$). Genre effects on overall recall of content units were also significant for both passage sets, though the pattern differed. For the easier passages, children recalled a higher

proportion of the content units for the stories than for the reports ($p < .007$); for the harder passages, recall was better for the reports ($p < .002$). These findings parallel the results reported earlier, for the number of words retold expressed as a percentage of the number of words in the original.

Insert Table 6 about here

Patterns of recall at the various hierarchical levels are of particular interest, and are displayed in Table 6 along with the results for overall recall. As with total recall, there are reasonably consistent increases across levels as grade increases, and significant genre differences. In particular, story recall seems to be more reliant upon the content structure; the percent recalled decreased steadily with diminishing content level, from nearly 70 percent recalled at level 2 to less than 10 percent at level 6. This pattern was less dramatic in the students' retelling of reports, which included no more than 32 percent of the content from any of the levels. This suggests either that the students of all ages have a better representation of story structures and therefore use these representations to organize their retellings, or that the stories were better formed than the reports, making the structures more memorable. The fact that overall recall was better for reports than for stories in the more difficult passage set suggests that students' sensitivity to structure, rather than the memorability of the passages, was responsible for the patterning in the recalls.

Some examples will illustrate how the retellings varied. First,

third-grade Ana's retelling of the Jackie story:

> Well, there is this new kid Jackie who came to town - and these three boys want - and she comes out and plays with these three boys. An then they eh - and then they ask him if he wants to be in the club and they say he has - and he says alright, what would I have to do. And so they say you have to do a task. And so em they told him to meet him at the corner, em empty corner. And well, at the corner at mid - at midnight - when it gets dark. Anyways, he went there and he said all right now what would I have to do? And then they took him a few blocks-houses down and they told him they have to go and ring - pull the string in the old house. And so he - she he did. I can --- I don't know what to call him or her or it. And so she climbed up on the porch and the bear , what they called it, bit him and he goes back and it's a joke. You just barely made it. And so then she says - and then they roamed the streets for a while or something and they did all those things. And when school started they were waiting outside for her, for him, or it. And so he came out- and this little girl came out with a green dress with a green ribbon in her head and they said, "Who are you?" or "Get Jackie." "I'm," she said, "I'm Jackie". "Well, what are you doing in that dress?" "Mama wouldn't let me wear pants to school." And they didn't know it.

Ana's retelling includes all the major parts of the story. Her presentation reflects the top level rhetorical structure (sequence) used to structure the original passage. Her account captures the gist of the original, and includes a large number of the content items and lower level rhetorical structures. She included 30 content items in her retelling, 42.2 percent of the content units in the original text.

Sixth grade Jim's retelling of Prairie Dog is an example of a retelling of a less well understood passage, in this case a report.

> It's a story about how the prairie dogs um play around and what their basic day is like, and how they saved - how they lived through uhm when the many guys came over and dumped gallons and gallons of water on them to wipe them out. And they were amazed that the water had disappeared all of a sudden. Not all that quickly, I guess. A few days. And uhm it tells how they help save water when droughts occur and things like that.

Jim did not use the top level structure to guide his presentation, nor did he relate the gist or title. Instead, he retold the few isolated bits he had remembered. The information he presented was primarily clustered within the last description/collection episode (27 - 32) presented in the passage. He included four content items in his retelling, representing 12.5 percent of those in the original.

In general, those who remembered less from the passages were less verbose, and in lieu of a more comprehensive retelling, gave the title or presented some very generalized statement about the piece. While they always included some content units in their retellings, the percentage of content items retold was low and they did not present them either in rhetorical structures like those presented in the text, or in newly created structures of their own that might have provided evidence of integration of the given information.

Discussion

The findings clearly suggest that the students participating in this study had a very firm sense of stories and reports. From third grade on they responded in clearly different ways to story and report tasks. The two were organized differently, the content differed, the highest level organizing structures were different, and the kinds and amounts of elaborations were also different. While the younger students had less control of the general organization of adult forms of reports as opposed to stories, this gap narrowed considerably sometime between grades 6 and 9. Much growth seems to have occurred in organizational and syntactic skills between these grades -- more

embeddings are used, the structures become more highly organized, more elaborations are presented.

These changes occurred even more dramatically in the children's reports than in their stories. Clearly, from grade 3 on, the students had a well formed notion of story organization. They used this knowledge well in their writing as well as their retelling. However, while the third, and even sixth, graders demonstrated less control of the adult forms of report organization, they tended nonetheless to be consistent in the report forms they did use. The more youthful version of report relied upon a series of description/collections to move the piece along, and tended to be organizationally dominated by the title. While dramatic changes occurred in the student use of report form between grades 6 and 9, the findings suggest that it is too simplistic to assume that before that time they did not have control of <u>any</u> report form.

How can these developments be explained? We can conjecture that from an early age children hear stories that use the same forms as the stories that they are later expected to read and write in school. On the hand, children rarely hear spoken versions of "academic" reports, either at home or school. The functional forms they hear and use in their daily lives serve as their models, and these may be the source of the simple forms they use to structure their reading and writing in the early grades. Research, of course, will need to bear this out.

In recent years there has been a growing focus on reading and writing activities and how they are related. The analyses presented

here, although focussing primarily on genre structures, suggest that the critical factors that seem to make a difference in children's organization of their ideas during reading and writing lie in the functional uses that underlie those activities. The genres studied here are a direct outgrowth of those functional uses. With this in mind, a productive research agenda might be to investigate the ease with which childrer learn to elaborate upon known genres and learn to manage new genres in relation to the specific functions they perceive them to serve. Findings could help explain the development of structural schemata, and provide a useful base for instructional research in reading as well as writing.

References

Applebee, A.N. (1978). *The child's concept of story: ages two to seventeen*. Chicago, IL: University of Chicago Press.

Applebee, A.N. (1981). *Writing in the secondary school: English and the content areas*. Urbana, IL: National Council of Teachers of English.

Applebee, A.N. (1984). *Contexts for learning to write: Studies of secondary school instruction*. Norwood, NJ: ABLEX.

Bissex, G.L. (1980). *Gnys at wrk*. Cambridge, MA: Harvard University Press.

Harste, J.C., Burke, C.L., & Woodward, V.A. (1983). *The young child as writer-reader, and informant*, Final Report, National Institute of Education Number NIE-G-80-0121.

Hidi, S., & Hildyard, A. The comparison of oral and written productions in two discourse modes. *Discourse Processes* 6, 2, 1983, 91-105.

Meyer, B.J.F. (1975). *The organization of prose and its effect on memory*. Amsterdam: Elsevier-North Holland.

Meyer, B.J.F. (1981). *Prose analysis procedures, purposes, and problems*. Dept. of Educational Psychology, Arizona State University.

Olson, G.W., Mack, R.L., & Duffy, S.A. (1981). Cognitive aspects of genre. *Poetics*, 10, 283-315.

Stein, N.L., & Glenn, C.G. (1979). An analysis of story comprehension in elementary school children. In R.O. Freedle (ed.), *New directions in discourse processing II*. Norwood, NJ: ABLEX.

Table 1

Use of Top Level Structures

	Frequencies							
Genre:	STORY				REPORT			
Grade:	3	6	9	All	3	6	9	All
Rhetorical Predicates								
Response	0	0	0	0	1	0	0	1
Sequence	4	16	3	23	1	4	0	5
Lexical Predicates								
Title	6	7	6	19	10	20	5	35
Main Idea	6	13	6	25	4	12	9	25
			n = 67				n = 66	

Tests of significance[1]

Effect	df	Chi-square	Probability
GRADE			
Story	4	4.96	ns
Report	4	6.19	.19
MODE			
Story	2	0.10	ns
Report	2	0.57	ns
GENRE	1	12.04	.001

[1]Comparing use of sequence, title, or main idea; omits response.

Table 2

Internal Structure in Student Writing

	Means					
Genre:	STORY			REPORT		
Grade:	3	6	9	3	6	9
Deepest level	3.25	3.36	3.40	3.31	4.28	5.21
Broadest level	2.31	2.08	2.20	2.25	2.78	3.29
Deeply linked nodes	4.00	4.56	4.27	2.19	3.69	6.00
Shallowly linked nodes	2.56	3.39	4.47	2.31	4.36	5.71

Multivariate Tests of Significance

Between Subjects	df	F-Statistic	Probability
Grade	8,114	1.92	.063
Mode	4,57	1.41	ns
Grade x Mode	8,114	.59	ns
Within Subjects			
Genre	4,57	10.73	.001
Genre x Grade	8,114	2.27	.027
Genre x Mode	4,57	2.47	.055
Genre x Grade x Mode	8,114	.23	ns

Table 3

Length of Student Writing

	Means					
Genre:	STORY			REPORT		
Grade:	3	6	9	3	6	9
No. of words	108.56	202.19	225.27	72.31	175.61	243.86
No. of sentences	11.31	17.89	16.13	7.25	12.89	16.00
No. of T units	12.81	21.50	19.33	8.06	14.39	18.43
Words per T unit	8.43	9.38	12.26	9.03	12.46	13.33

Multivariate Tests of Significance

Between Subjects	df	F-Statistic	Probability
Grade	8,114	6.93	.001
Mode	4,57	1.71	.159
Grade x Mode	8,114	0.41	ns
Within Subjects			
Genre	4,57	11.98	.001
Genre x Grade	8,114	1.74	.096
Genre x Mode	4,57	1.70	.163
Genre x Grade x Mode	8,114	0.60	ns

Table 4

Length of Retellings

Means

	EASIER				MORE DIFFICULT			
	Grade 3		Grade 6		Grade 6		Grade 9	
	Jackie	Mole	Jackie	Mole	New Kid	Prairie Dog	New Kid	Prairie Dog
Words retold	129.3	56.4	203.7	144.67	145.4	150.2	183.1	149.5
SD	93.6	33.5	60.6	57.3	77.6	195.5	63.1	92.4
% Retold	23.2	9.8	36.6	25.2	21.4	36.7	26.9	36.6

Univariate Tests of Significance

	Easier			Easy vs. Difficult			More difficult		
	Gr. 3 vs. Gr. 6			Gr. 6 vs. Gr. 6[1]			Gr. 6 vs. Gr. 9		
Between Subjects	df	MS	F	df	MS	F	df	MS	F
Grade	1	77728.34	17.01***	1	3996.69	1.24	1	4181.33	.32
Mode	1	8138.58	1.79	1	4849.20	.43	1	53930.78	4.12*
Grade x Mode	1	1181.25	.26	1	10539.32	.93	1	830.80	.06
Within Subjects									
Genre	1	73584.86	18.54***	1	14300.59	3.14	1	5084.08	1.54
Genre x Grade	1	941.91	.24	1	10134.13	2.22	1	1344.08	.41
Genre x Mode	1	1560.39	.39	1	10534.53	2.31	1	23538.78	7.11**
Genre x Grade x Mode	1	6808.71	1.72	1	25414.52	5.57*	1	12997.25	3.93

*p<.05, **p<.01, ***p<.001

[1]These comparisons contrast performance by comparable groups on the two sets of passages

Table 5

Recall of Higher Level Structures

Percent of Protocols

	STORY				REPORT			
Passage:	JACKIE		NEW KID		MOLE		PRAIRIE DOG	
Grade:	3	6	6	9	3	6	6	9
Structure								
Top	60.0	81.8	55.3	28.6	0.0	40.0	5.9	15.4
Gist	40.0	81.8	60.0	78.6	35.7	60.0	29.4	61.5
Title	0.0	0.0	20.0	21.4	78.6	70.0	52.9	23.1
	n = 26		n = 29		n = 24		n = 30	

Tests of Significance

	df	Chi-Square	Probability
TOP			
Grade			
Stories	2	6.57	0.37
Reports	2	2.89	ns
Mode			
Stories	2	1.54	ns
Reports	2	0.95	ns
Genre	1	14.81	.001
GIST			
Grade			
Stories	2	4.92	.086
Reports	2	2.12	ns
Mode			
Stories	2	1.74	ns
Reports	2	1.21	ns
Genre	1	4.05	.044
	df	Chi-Square	Probability

Table 5 (continued)

TITLE			
Grade			
Stories	2	3.76	ns
Reports	2	8.70	.01?
Mode			
Stories	2	0.57	ns
Reports	2	).10	ns
Genre	1	16.00	.001

Table 6

Percent of Content Units Recalled

Means

	STORY				REPORT			
Passage:	JACKIE		NEW KID		MOLE		PRAIRIE DOG	
Grade:	3	6	6	9	3	6	6	9
TOTAL	19.8	28.4	15.7	20.7	11.8	25.2	20.8	30.7
Level 2	53.3	59.1	93.3	71.4	26.5	38.6	27.9	37.5
Level 3	29.0	43.3	22.4	32.1	8.9	25.0	23.0	29.5
Level 4	20.6	27.9	12.6	14.3	12.1	28.0	21.0	35.2
Level 5	7.1	15.2	3.7	6.3	6.3	20.0	10.3	23.1
Level 6	10.0	12.1	3.3	12.5	14.3	17.5	8.8	30.8
Level 7	Passage stops at level 6				0.0	5.0	23.5	23.1

Univariate Tests of Significance: Total Recall

Easier Passage Set (Gr. 3,6)

	df	MS	F	Probability
Between Subjects				
Grade	1	1418.03	11.21	.004
Mode	1	473.57	3.77	.070
Grade x Mode	1	22.44	0.28	ns
Within Subjects				
Genre	1	893.52	9.20	.007
Genre x Grade	1	86.48	0.89	ns
Genre x Mode	1	156.56	1.62	ns
Genre x Grade x Mode	1	239.78	2.48	ns

More Difficult Passage Set (Gr. 6,9)

Between Subjects				
Grade	1	883.80	3.70	.066
Mode	1	63.27	0.27	ns
Genre x Mode	1	688.68	2.88	ns
Within Subjects				
Genre	1	677.19	12.75	.002
Genre x Grade	1	69.39	1.33	ns
Genre x Mode	1	103.75	1.98	ns
Genre x Grade x Mode	2	24.52	0.47	ns

Table 6 (continued)

	df	MS	F	P
		Easy vs. Difficult Passage Sets (Gr. 6)		
Between Subjects				
Passage Set (Grade)	1	1131.95	5.29	.032
Mode	1	868.94	4.06	.057
Passage x Mode	1	0.74	0.00	ns
Within Subjects				
Genre	1	7.73	0.11	ns
Genre x Grade	1	324.51	4.49	.047
Genre x Mode	1	0.02	0.00	ns
Genre x Grade x Mode	1	39.01	0.54	ns

Multivariate Tests: Using recall at levels II-VI as dependent variables

	Easier		Easy vs. Diff.		More Difficult	
	Gr.3 vs. Gr.6		Gr.6 vs. Gr.6		Gr.6 vs. Gr.9	
	df	F	df	F	df	F
Between Subjects						
Passage Set (Grade)	5,13	4.15**	5,20	2.26	5,16	2.41
Mode	5,13	1.09	5,20	0.39	5,16	1.13
Genre x Mode	5,13	1.29	5,20	1.49	5,16	0.61
Within Subjects						
Genre	5,13	8.25***	5,20	20.15***	5,16	18.75***
Genre x Grade	5,13	0.75	5,20	2.51	5,16	4.53**
Genre x Mode	5,13	0.53	5,20	2.84*	5,16	0.06
Genre x Grade x Mode	5,13	1.69	5,20	1.58	5,16	0.51